IN THE DRAWINGS:

Figure 3b has been amended to add reference numeral 307 to the network. Accordingly, a replacement sheet for Figure 3b is attached with this Amendment and Response. The remainder of the Examiner's drawing objections are addressed in the specification.

RESPONSE

This is a response to the Office Action dated September 19, 2005. Claims 1-49 are pending in the application. In the Office Action, the Examiner objected to various informalities in the specification, drawings and claims. The specification, drawings and claims have been amended to correct these informalities. No new matter has been added with the amendments. The Examiner rejected claims 1-49 under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. The examiner rejected claims 1, 25 and 49 under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 5,764,155 ("Kertesz"). Claims 2-14, 16-24, 26-37 and 39-48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kertesz. "Official notice is taken that network and computer based communications using security measures was well know at the time of the invention was made in analogous art of U.S. Pat. No. 6,263,313 ("Milsted"), U.S. Pat. No. 6,112,304 ("Clawson"), and U.S. Pat. No. 5,862,325 ("Reed")." Office Action of 09/19/05, p. 13, para. 30. Claims 15 and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kertesz, in view of the official notice and further in view of U.S. Pub. No. 2001/0002485 ("Bisbee").

The rejections from the Office Action of September 19, 2005 are discussed below in connection with the various claims. No new matter has been added. Reconsideration of the application is respectfully requested in light of the following remarks.

I.   DRAWING OBJECTIONS

The Examiner objected to the drawings as containing various informalities. With this response, appropriate corrections have been made. No new matter has been added. In particular, the following corrections have been made:

1.   Figure 3b has been replaced with a Replacement Sheet for Figure 3b in which the network is labeled as 307;

2.   In paragraph 0050, the detailed description has been modified to replace "111" with "211";

3.   In paragraph 0051, the detailed description has been modified to delete three instances of "111" and replace them with "211";

4.   In paragraph 0057, the detailed description has been modified to add 282 in "power management circuitry 282";

5.   In paragraph 0058, the detailed description has been modified to include loads 151 and 153 as well as generator 152: "The consumer 132 concurrently monitors usage of loads 150 151 153, where generator 152 supplies power to usage load 153,...";

6.   In paragraph 0058, the detailed description has been modified to include the sentence: "A second customer 133 can also concurrently monitor usage loads 155 156 157 where generator 154 supplies power to usage load 157";

7.   In paragraph 0064, the detailed description has been modified to include identification of the IP layers as 326: "...remaining IP layers 326 where...";

8.   In paragraph 0069, the detailed description has been modified to state: "...where kvA or kWh pulses 420 translated into data 422 are sent...";

9.   In paragraph 0069, the detailed description has been modified to state: "...analyzed according to 430 for usage, consumption...";

10. In paragraph 0069, the detailed description has been modified to state: "...set tariff structure according to 436.";

11. In paragraph 0071, the detailed description has been modified to state: "...measures power usage by the load and by converting a kWh or kVa pulse 511 into data 512 and transmits...";

12. In paragraph 0071, the detailed description has been modified to state: "...usage 516, 518 and upon receiving costs 520 compares rates...";

13. In paragraph 0071, the detailed description has been modified to state: "...tariff structure 523, 524 and the process is complete 530.";

14. In paragraph 0077, the detailed description has been modified to state: "supplies power from a power utility 700";

15. In paragraph 0082, the detailed description has been modified to state "An IED 902 is connected . . . through connection 905.";

16. In paragraph 0083, the detailed description has been modified to state: "an IED 1002 monitors a load 1001 over power distribution network 1000 and passes the monitored data over network 1010 to a monitoring server 1011";

17. In paragraph 0194, the detailed description has been modified to state "provides access through channel 1460 . . .";

18. In paragraph 0194, the detailed description has been modified to state "provides access through channel 1465 . . . ."

Accordingly, Applicants respectfully request that the Examiner withdraw the objections to the Drawings.

II. **SPECIFICATION OBJECTIONS**

The Examiner objected to the specification as containing various informalities and typographic errors. With this response, the appropriate paragraphs of the specification have been amended to correct all of the errors noted by the Examiner. No new matter has been added.

In particular, the following corrections have been made:

1. The abstract has been replaced and is now under 150 words;

2. In paragraph 0002, the patent number has been added for "U.S. Pat. No. 6,961,641, issued on November 1, 2005,";

3. In paragraph 0047, SMTP, MIME, and POP have been spelled out;

4. In paragraph 0050, the "backend servers 121, 122, 123, 124" has been corrected to "backend servers 120, 121, 122, 123, 124";

5. In paragraph 0050, "111" has been replaced with "211";

6. In paragraph 0052, the IED label is corrected to "another IED 102-109";

7. In paragraph 0053, "supplier/utility 123, 124" has been corrected to "supplier/utility 130, 131";

8. In paragraph 0056, "power management application components 211" has been corrected to "power management application 211";

9. In paragraph 0056, four instances of "components" have been corrected to "components 201 202 203";

10. In paragraph 0058, "monitoring component" is corrected to "management component";

11. In paragraph 0058, "power distribution" was deleted before "network 110";

12. In paragraph 0061, "load's 301" has been corrected to "load's 317";

13. In paragraph 0061, "communications interface 312" has been corrected to "communications interface 313";

14. In paragraph 0066, "power distribution system 301" has been corrected to "power distribution system 300";

15. In paragraph 0069, numeral 430 is added to: "analyzed according to 430 for usage, consumption or billing revenue ranges against a pre-determined tariff structure 432" which obviates the need to change 432 to 430 as suggested by the examiner;

16. In paragraph 0070, "load management component 250" has been corrected to "... component 259";

17. In paragraph 0071, "back end server 511" has been corrected to "back end server";

18. In paragraph 0076, the serial number is updated as well as the patent number;

19. In paragraph 0077, "loads 724 726" has been corrected to "loads 722 724";

20. In paragraph 0079, "IED 804 806" has been corrected to "IED 802 804";

21. In paragraph 0084, "data fro" has been corrected to "data from";

22. In paragraph 0110, the patent number reference has been replaced with the current status of the application as abandoned;

23. In paragraph 0183, "Component 420" has been corrected to "Component 1420."

Accordingly, Applicants respectfully request that the Examiner withdraw the objections to the Specification.

III. **REJECTIONS UNDER 35 U.S.C. § 112**

The Examiner rejected claims 1-49 under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant

regards as the invention. With this response, claims 1, 4-6, 8, 11, 15, 16, 19, 25, 28, 29, 32, 33, 35, 38, 40, 43, 44 and 49 have been amended for clarity and not for reasons related to patentability. Applicant contends claims 1-49 particularly point out and distinctly claim the subject matter, which the Applicant regards as the invention.

Accordingly, Applicant respectfully requests that the Examiner withdraw this rejection to claims 1-49.

IV. REJECTIONS UNDER 35 U.S.C. § 102

The examiner rejected claims 1, 25 and 49 under 35 U.S.C. § 102(b) as being anticipated by Kertesz. Kertesz discloses "[a] dynamic data exchange (DDE) server which allows external programs to access power management data is presented. The DDE server provides a mnemonic cross reference between register items and standardized, alphanumeric parameter names." Kertesz, Abstract. Kertesz further discloses that "[t]he DDE server acts as a link between a client requesting device data and a field device which can provide the data. The DDE server communicates to the field device through communication ports and to the client via DDE message link."

Kertesz fails to disclose an energy management device with a security module as in claims 1 and 49. The security module is "operative to secure said outbound communications and validate said at least one secured inbound communication" according to claims 1 and 49. In Kertesz, the energy management device is shown in Figure 3 as number 142, whereas the Ethernet Gateway is 150. The Gateway 150 is coupled to the energy management device 142 over the Ethernet network 146. Kertesz does disclose that "[because a] gateway seeks to retransmit packets received from the LAN, it is very important to ensure that these packets did in fact come from the power management system and not other non-related devices (i.e., authentication and security)." Kertesz, Col. 6, ll. 10-14; Col. 47, ll. 4-7. The transfer protocol employed in Kertesz has "a header which contains information regarding the number of bytes in the serial data packet and a checksum byte that ensures that the header itself has not been corrupted." Kertesz, Col. 6, ll. 15-18. "[P]ackets transmitted to the gateway 150 by computer 142 comprise the serial communications data packet plus a fifteen byte header inserted in front of it." Kertesz, Col. 47, ll. 12-15. The security and

authentication that occur in Kertesz are located within the Ethernet Gateway 150, and do not occur within the energy management device 142. Therefore, the energy management device 142 does not disclose a security module.

Related to the failure to disclose a security module is the fact that the energy management device in Kertesz does not disclose secured outbound communications or the validation of secured inbound communications as in claims 1, 25 and 49. Even if it was assumed that the energy management device in Kertesz received secured inbound communication (presumably from the Ethernet Gateway), there is no disclosure that the energy management device could validate the secured inbound communication and also secure outbound communication. *See* Kertesz, Figure 3.

Kertesz also fails to disclose the "[generation of] second energy management data as a function of said energy management function" as in claims 1, 25 and 49. The claims disclose an energy management function performed on at least a portion of said energy distribution system and a generation of second energy management data as a function of that energy management function. Kertesz does not disclose an energy management function performed on at least a portion of the energy distribution system. Even assuming that the collection of data is an energy management function, the energy management device in Kertesz does not then generate second energy management data as a function of that data collection. *See* Office Action of 9/19/05, p. 12 (stating data collection is an energy management function). Kertesz does disclose an energy management device that analyzes data, but there is no disclosure of the generation of second energy management data as a function of an energy management function. *See* Kertesz, Col. 11, ll. 31-52. Specifically, there is a graphical user interface for monitoring and control of the electrical distribution system. Kertesz, Col. 11, ll. 32-34. However, even if the analysis and display were second energy management data, the outbound communications comprises the second energy management data. The outbound communications are then secured before being communicated according to claims 1, 25 and 49. Kertesz fails to disclose the generation of second energy management data as a function of an energy function and further fails to disclose the secure transmission of second energy management data as outbound communications.

In addition, it is unclear in Kertesz whether an "energy distribution system interface" is disclosed. Kertesz does disclose a network interface in the "RS485 cards and adapters 124" and "Ethernet cards and adapters 144." Kertesz, Figures 2-3. Claims 1 and 49 disclose an "energy distribution system interface" in addition to a network interface. Kertesz discloses remote devices that are presumably connected to a power distribution system, but there is no express interface (different from the network interface) in the energy management device that connects the device to the power distribution system.

For at least these reasons, Kertesz does not anticipate independent claims 1, 25 and 49. Accordingly, Applicant requests that the Examiner withdraw this rejection of claims 1, 25 and 49.

IV.   REJECTIONS UNDER 35 U.S.C. § 103(a)

Claims 2-14, 16-24, 26-37 and 39-48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kertesz. Official notice was taken that network and computer based communications using security measures was well known at the time of the invention was made in analogous art of Milsted, Clawson, and Reed. Claims 15 and 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kertesz, in view of the official notice and further in view of Bisbee.

Milsted, Clawson, Reed and Bisbee all fail to disclose the elements of independent claims 1 and 25. In particular, these references fail to disclose the security module and secured communications of the claims. In addition, there is no disclosure of secured outbound communications or the validation of secured inbound communications, an energy management function to generate second energy management data, or an energy distribution system interface according the energy management device disclosed in claims 1 and 25. Applicant's acknowledge the Examiner's Official Notice, but respectfully disagrees and points out that the specific security measures in claim 1 and 25 are not known as used by an energy management device in an energy management architecture for managing an energy distribution system.

Dependent claims 2-24 and 26-48 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Kertesz. Dependent claims 2-24 and 26-48 should be allowed for

the reasons set out above for the independent claims from which they depend. Applicant therefore requests that the Examiner withdraw these rejections of dependent claims 2-24 and 26-48.

CONCLUSION

Each of the rejections in the Office Action dated September 19, 2005 has been addressed and no new matter has been added. Applicants submit that all of the pending claims are in condition for allowance and notice to this effect is respectfully requested. The Examiner is invited to call the undersigned if it would expedite the prosecution of this application.

Respectfully submitted,

12-19-05

Date

Scott Timmerman

Scott A. Timmerman
Registration No. 55,678

Attorney for Applicants

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200